



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/683,635      | 01/29/2002  | Mathew Sommers       | GLO 2 0079          | 4172             |

27885 7590 09/27/2004

FAY, SHARPE, FAGAN, MINNICH & MCKEE, LLP  
1100 SUPERIOR AVENUE, SEVENTH FLOOR  
CLEVELAND, OH 44114

|          |
|----------|
| EXAMINER |
|----------|

LEE, GUIYOUNG

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2875

DATE MAILED: 09/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/683,635

Applicant(s)

SOMMERS, MATHEW

Examiner

Guiyoung Lee

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 18-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 18-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Receipt is acknowledged of the Notice of Appeal and Response filed 6-28-2004.

#### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6, 9, 11-16, and 18-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin (USPT 4,950,958) in view of Katoh (USPT 5,032,960).

Re claims 1, 9, 14, 16, and 18-20: Lin958 discloses a lighting strip having an electrical cable (30 in Fig. 2) including a plurality of electrical conductors (31-34), a plurality of light emitting devices (LEDs) (1 in Fig. 1) arranged alongside the electrical cable (30) and electrically connected thereto, and a sheath (40) at least partially made from a light transmissive material (col. 2, lines 9-21), said sheath having a hollow region (1) adapted to receive the LEDS. Lin958 does not disclose an integrally formed cylindrical lens. However, Katoh teaches an integrally formed cylindrical lens (34 in Fig. 6B) arranged to optically cooperate with the LEDs (32). It would have been obvious to one having ordinary skill in the art at the time of the invention to employ Katoh's cylindrical lens on the Lin958's sheath in order to enhance the luminous flux from the LED light source.

Re claims 2-3, 12-13: Katoh's lens is a part of the sheath that is an extruded length of a wave guiding material having high refractive index.

Art Unit: 2875

Re claim 4: Lin958 discloses that a plurality of LEDS (1) is arranged such that they face the same direction (See Fig. 1).

Re claim 5: Katoh discloses that the plurality of LEDS (32) face the cylindrical lens (34).

Re claims 6 and 11: Lin958 discloses a lead frame or wire, which provides for electrical connection of the LED to the cable (See 5 and the lead frame connecting the LED 1 in Fig. 1).

Re claim 15: Lin958's linear lamp is flexible and arrangeable in a non-straight orientation (col. 2, line 49).

Re claim 21: Katoh teaches that the tube is formed by an extrusion molding (col. 5, line 46).

Re claim 22: Katoh teaches two color molding (col. 5, line 43).

Re claims 23-24: Katoh teaches a method for manufacturing a lighting strip (col. 5, lines 28-59).

4. Claims 7-8 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin958 and Katoh as applied to claims 1 and 23 above, and further in view of Lin (US 5,672,000). The teachings of Lin958 and Katoh have been discussed above.

Re claims 7-8 and 25-26: Lin958 and Katoh do not disclose a plurality of LED sockets or mounts and a plurality of crimps. However, Lin000 teaches a plurality of LED sockets (5 in Fig. 5), mounts (2), and crimps (43). Further, Lin000 teaches a method of attaching the mounts and crimps to the electrical cable. It would have been obvious to one having ordinary skill in the art at the time of the invention to substitute Lin000's LEDs having mounts and crimps with Lin958's LED in order to attach the LEDS conveniently.

Art Unit: 2875

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lin958 and Katoh as applied to claim 1 above, and further in view of Kobayashi et al. (USPT 6,559,879 B1). The teachings of Lin958 and Katoh have been discussed above.

Re claim 10: Lin958 and Katoh do not disclose the light emitting diodes as set forth in the claim 10. However, Kobayashi teaches phosphide-based light emitting diodes (col. 2, lines 12-132). It would have been obvious to one having ordinary skill in the art at the time of the invention to substitute Kobayashi's phosphide-based light emitting diodes with Brookman's LEDs in order to provide red color light.

#### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1-16 and 18-26 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***

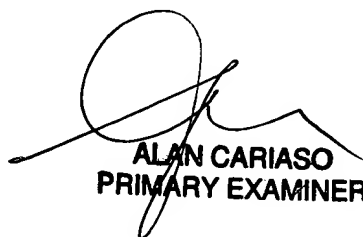
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guiyoung Lee whose telephone number is 571-272-2374. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571-272-2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2875

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LGY



**ALAN CARIASO**  
**PRIMARY EXAMINER**